

# Digital Communication Tools

**4526**

*Suggested Grade Level:* 7-9

*Prerequisites:* None

Digital Communication Tools is a business course that prepares students to use computerized devices and software programs to effectively handle communication-related school assignments and to develop communication competencies needed for personal and professional activities after graduation. Students will learn the capabilities and operation of high-tech hardware and software and will develop proficiency using a variety of computer input and output technologies, including touch keyboarding, speech recognition and handwriting recognition. Knowledge of hardware, software, and input and output proficiencies will be applied to communication situations that require problem solving and critical thinking. The projects included in this course will enable students to enhance their math, reading, listening, writing, speaking, and information presentation skills.

- A one- or two-credit course over one or two semesters
- A Core 40 directed elective
- An Academic Honors and Technical Honors elective
- May be offered at the middle school level for high school credit if the course standards are met
- A foundation course for Computer Applications
- Content standards and performance expectations defined
- *Indiana's Academic Standards for Language Arts and Mathematics* have been incorporated into this course
- A recommended component of all Indiana career clusters
- Additional Pupil Count (APC) State funding not available

## Course Content Standards and Performance Expectations

### DCT 1 Computer Literacy and Keyboarding Skill

**DCT 1.1 Content Standard:** Students develop computer literacy.

#### ***Performance Expectations***

- DCT 1.1.1** Identify and operate equipment, including startup and exit procedures
- DCT 1.1.2** Explain and use appropriate file management techniques
- DCT 1.1.3** Demonstrate ethical conduct as it relates to technology
- DCT 1.1.4** Assess software and hardware capability
- DCT 1.1.5** Explain and use appropriate computer terminology
- DCT 1.1.6** Select appropriate technology tool to solve a problem efficiently

**DCT 1.2 Content Standard:** Students develop and refine touch-keyboarding skills.

#### ***Performance Expectations***

- DCT 1.2.1** Demonstrate and discuss correct keyboarding position and techniques including ergonomics, avoidance of repetitive strain injury, etc.
- DCT 1.2.2** Key alphabetic, numeric, and symbolic data using the proper technique
- DCT 1.2.3** Key numeric data using the ten-key pad
- DCT 1.2.4** Build and demonstrate speed in keying material
- DCT 1.2.5** Build and demonstrate accuracy in keying material

## **DCT 2            Formatting/Application Skills**

**DCT 2.1            Content Standard:** Students develop and refine formatting/application skills using the touch-keyboarding technique.

### ***Performance Expectations***

- DCT 2.1.1**        Identify and use software features that facilitate formatting documents
- DCT 2.1.2**        Key, format, and edit business and personal business letters using various components and styles to produce a professional document
- DCT 2.1.3**        Key, format, and edit envelopes and labels using appropriate formats
- DCT 2.1.4**        Create and edit a variety of table formats using the table function
- DCT 2.1.5**        Construct tables and insert tables into other business documents including letters and reports
- DCT 2.1.6**        Create and edit memos and e-mail messages to produce a professional document
- DCT 2.1.7**        Create and edit reports including special parts and documentation
- DCT 2.1.8**        Create and edit a variety of personal and professional documents
- DCT 2.1.9**        Apply proofreading and editing skills

## **DCT 3            Business Communication Skills**

**DCT 3.1            Content Standard:** Students develop and refine oral and written communication skills.

### ***Performance Expectations***

- DCT 3.1.1**        Compose, input, and format business communications appropriate for a variety of audiences and situations
- DCT 3.1.2**        Use correct verbal and written language skills and subject-specific terminology
- DCT 3.1.3**        Avoid inappropriate and biased language
- DCT 3.1.4**        Make oral presentations, including visual aids, for designated audiences and situations
- DCT 3.1.5**        Evaluate resources based on their origin to determine bias and integrity of information
- DCT 3.1.6**        Address ethical issues regarding intellectual property and dissemination of electronically generated information
- DCT 3.1.7**        Apply appropriate copyright laws involved in gathering, displaying, and interpreting data

**DCT 3.2            Content Standard:** Students develop and refine proofreading skills.

### ***Performance Expectations***

- DCT 3.2.1**        Apply proper editing marks to hard-copy documents
- DCT 3.2.2**        Review and apply grammatical rules for number usage, capitalization, punctuation, and abbreviations
- DCT 3.2.3**        Proofread and edit documents for meaning and readability
- DCT 3.2.4**        Evaluate documents for content appropriateness and effectiveness of communication
- DCT 3.2.5**        Revise documents making needed corrections

## **DCT 4        Speech Recognition**

**DCT 4.1        Content Standard:**    Students use start-up procedures for speech recognition tools.

### ***Performance Expectations***

**DCT 4.1.1**        Create and choose a personal user speech file/profile

**DCT 4.1.2**        Train speech recognition software to recognize the user's voice through the training/enrollment process

**DCT 4.1.3**        Position and adjust headset or microphone

**DCT 4.1.4**        Test the microphone and audio settings

**DCT 4.2        Content Standard:**    Students use basic speech recognition commands and techniques.

### ***Performance Expectations***

**DCT 4.2.1**        Open and close computer software applications and menus

**DCT 4.2.2**        Activate or deactivate the microphone

**DCT 4.2.3**        Use correct commands in entering course appropriate text

**DCT 4.2.4**        Navigate through a document

**DCT 4.2.5**        Print documents

**DCT 4.3        Content Standard:**    Students improve dictation and editing techniques.

### ***Performance Expectations***

**DCT 4.3.1**        Improve speech profile

**DCT 4.3.2**        Use appropriate commands for formatting

**DCT 4.3.3**        Use appropriate methods for special characters and non-alphabetic text

**DCT 4.3.4**        Use voice commands to select, copy, delete, and move text

**DCT 4.3.5**        Add words, including names, to speech recognition dictionary using the add-word feature

**DCT 4.3.6**        Save a selected dialog and/or document

**DCT 4.4        Content Standard:**    Students format text using speech commands.

### ***Performance Expectations***

**DCT 4.4.1**        Compose and input various documents

**DCT 4.4.2**        Apply various voice formatting techniques to a word processing document

**DCT 4.4.3**        Apply proofread and editing skills

## **DCT 5        Personal Digital Assistants/Handheld Devices**

**DCT 5.1        Content Standard:**    Students learn the features and setup of PDAs/handheld devices.

### ***Performance Expectations***

**DCT 5.1.1**        Describe leading types and advantages of PDA/handheld devices operating systems

**DCT 5.1.2**        Activate programs/applications

**DCT 5.1.3**        Specify preferences and understand systems information

**DCT 5.1.4**        Synchronize ("Hot Sync") data with a personal computer

**DCT 5.1.5**        Beam data to and receive beamed infrared data from another PDA/handheld

device

**DCT 5.2      Content Standard:**    Students use input devices for PDAs/handheld devices.

***Performance Expectations***

**DCT 5.2.1**    Use the stylus to navigate (if available)

**DCT 5.2.2**    Use various handheld input methods (e.g., Graffiti, Graffiti 2, block recognizers, transcriber, voice, and keyboard)

**DCT 5.2.3**    Use appropriate input methods to create notes and memos

**DCT 5.3      Content Standard:**    Students apply PDA/handheld devices functions.

***Performance Expectations***

**DCT 5.3.1**    Create, search for, and edit entries in the address book or contact list

**DCT 5.3.2**    Create, beam, and receive personal business cards

**DCT 5.3.3**    Add and edit entries, and set alarms in calendar or datebook

**DCT 5.3.4**    Create, edit, prioritize, check off, and delete a task item

**DCT 5.3.5**    Attach a note to a task item

**DCT 5.3.6**    Write, edit, delete, and attach a memo or note

**DCT 5.3.7**    Solve real-world mathematical problems using the calculator feature

***Advanced Performance Expectations***

**DCT 5.3.8**    Use a PDA/handheld device to calculate financial information using the calculator, pocket spreadsheet, or expense/financial program

**DCT 5.3.9**    Add, edit, clear, and delete a financial transaction

**DCT 5.3.10**    Navigate the Internet (if available)

**DCT 5.3.11**    Send and receive communication

**DCT 5.3.12**    Upload and download to PC

**DCT 5.3.13**    Manage multimedia elements (if available)

**DCT 6      Handwriting Recognition**

**DCT 6.1      Content Standard:**    Students develop and refine digital pen skills.

***Performance Expectations***

**DCT 6.1.1**    Change the screen orientation with the digital pen and buttons

**DCT 6.1.2**    Use pen to tap, double tap, and tap and drag

**DCT 6.1.3**    Calibrate digital pen

**DCT 6.1.4**    Set the screen orientation sequence

**DCT 6.1.5**    Adjust the brightness of the screen

**DCT 6.1.6**    Improve input and edit techniques

**DCT 6.2      Content Standard:**    Students create documents.

***Performance Expectations***

**DCT 6.2.1**    Create and write a document

**DCT 6.2.2**    Edit and highlight a portion of a document

**DCT 6.2.3**    Move and convert handwritten text into typed text

**DCT 6.2.4**    Insert and remove space on a page

**DCT 6.2.5**    Flag and save a document

**DCT 6.3      Content Standard:**    Students use the input panel.

***Performance Expectations***

- DCT 6.3.1**    Alternate between the input panel options
- DCT 6.3.2**    Write using both printed and cursive letters
- DCT 6.3.3**    Change option and setting in the Input Panel
- DCT 6.3.4**    Post writing using the two-line writing feature
- DCT 6.3.5**    Erase writing by using the eraser or swish method for Tablet PC
- DCT 6.3.6**    Tap and drag over errors and rewrite
- DCT 6.3.7**    Correct errors by using the correction menu list
- DCT 6.3.8**    Correct spacing errors by using the space bar in the Writing Pad
- DCT 6.3.9**    Use automatic recognition in the Writing Pad
- DCT 6.3.10**    Undock and dock the Input Panel
- DCT 6.3.11**    Improve on-screen keyboard entry and editing techniques
- DCT 6.3.12**    Cut, copy, and paste using the Input Panel
- DCT 6.3.13**    Enter text using the Caps Lock feature and the symbols pad
- DCT 6.3.14**    Use the “Write Anywhere” feature in Windows-based applications
- DCT 6.3.15**    Tap and hold digital pen to activate shortcut to menus

**DTC 7      Electronic Note-Taking**

**DTC 7.1      Content Standard:**    Students organize notes using electronic note-taking software.

***Performance Expectations***

- DCT 7.1.1**    Create a folder, section, and header
- DCT 7.1.2**    Input ideas/notes using any part of the screen
- DCT 7.1.3**    Organize notes, including creating new pages and sections
- DCT 7.1.4**    Resize, split, and reorder items
- DCT 7.1.5**    Create bulleted lists
- DCT 7.1.6**    Create outlines
- DCT 7.1.7**    Organize notes through the use of formatting applications, including color

**DCT 7.2      Content Standard:**    Students use advanced functions of electronic note-taking software.

***Performance Expectations***

- DCT 7.2.1**    Search for desired content within notes
- DCT 7.2.2**    Add ruled lines to screen
- DCT 7.2.3**    Create and manipulate side notes
- DCT 7.2.4**    Sketch pictures in document
- DCT 7.2.5**    Insert pictures from various sources
- DCT 7.2.6**    Download information from Internet and other application files
- DCT 7.2.7**    Copy to word processing software
- DCT 7.2.8**    Insert documents from other applications
- DCT 7.2.9**    Send notes by e-mail to instructor
- DCT 7.2.10**    Use record function for taping presentation while taking electronic notes

**DCT 8          Alternative Input Devices**

**DCT 8.1          Content Standard:**    Students use other alternative input devices.

***Performance Expectations***

**DCT 8.1.1**      Import images and documents from various input devices

**DCT 8.1.2**      Determine appropriate file format used for images (GIF, PDF, video, etc.) based on their intended use

**DCT 8.1.3**      Explain the uses of current and emerging alternative input devices

# Indiana Academic Standards Integrated into Digital Communication Tools

## English/Language Arts

### *Standard 1*

#### *READING: Word Recognition, Fluency, and Vocabulary Development*

- 9.1.2 Distinguish between what words mean literally and what they imply and interpret what the words imply.

### *Standard 2*

#### *READING: Comprehension (Focus on Informational Materials)*

- 9.2.1 Analyze the structure and format of functional workplace documents, including the graphics and headers, and explain how authors use the features to achieve their purposes.
- 9.2.5 Demonstrate use of technology by following directions in technical manuals.
- 9.2.7 Evaluate an author's argument or defense of a claim by examining the relationship between generalizations and evidence, the comprehensiveness of evidence, and the way in which the author's intent affects the structure and tone of the text.

### *Standard 4*

#### *WRITING: Process*

- 9.4.1 Discuss ideas for writing with classmates, teachers, and other writers and develop drafts alone and collaboratively.
- 9.4.2 Establish a coherent thesis that conveys a clear perspective on the subject and maintain a consistent tone and focus throughout the piece of writing.
- 9.4.3 Use precise language, action verbs, sensory details, and appropriate modifiers.
- 9.4.4 Use writing to formulate clear research questions and to compile information from primary and secondary print or Internet sources.
- 9.4.5 Develop the main ideas within the body of the composition through supporting evidence, such as scenarios, commonly held beliefs, hypotheses, and definitions.
- 9.4.6 Synthesize information from multiple sources, including almanacs, microfiche, news sources, in-depth field studies, speeches, journals, technical documents, and Internet sources.
- 9.4.7 Integrate quotations and citations into a written text while maintaining the flow of ideas.
- 9.4.8 Use appropriate conventions for documentation in text, notes, and bibliographies, following the formats in specific style manuals.
- 9.4.10 Review, evaluate, and revise writing for meaning, clarity, content, and mechanics.
- 9.4.11 Edit and proofread one's own writing, as well as that of others, using an editing checklist with specific examples of corrections of frequent errors.
- 9.4.12 Revise writing to improve the logic and coherence of the organization and perspective, the precision of word choice, and the appropriateness of tone by taking into consideration the audience, purpose, and formality of the context.



### *Standard 5*

#### *WRITING: Applications (Different Types of Writing and Their Characteristics)*

- 9.5.3 Write expository compositions, including analytical essays and research reports that:
- gather evidence in support of a thesis (position on the topic), including information on all relevant perspectives.
  - communicate information and ideas from primary and secondary sources accurately and coherently.
  - make distinctions between the relative value and significance of specific data, facts, and ideas.
  - use a variety of reference sources, including word, pictorial, audio, and Internet sources, to locate information in support of topic.
  - include visual aids by using technology to organize and record information on charts, data tables, maps, and graphs.
  - anticipate and address readers' potential misunderstandings, biases, and expectations.
  - use technical terms and notations accurately.
- 9.5.5 Write documents related to career development, including simple business letters and job applications that:
- present information purposefully and in brief to meet the needs of the intended audience.
  - follow a conventional business letter, memorandum, or application format.
- 9.5.6 Write technical documents, such as a manual on rules of behavior for conflict resolution, procedures for conducting a meeting, or minutes of a meeting that:
- report information and express ideas logically and correctly.
  - offer detailed and accurate specifications.
  - include scenarios, definitions, and examples to aid comprehension.
  - anticipate readers' problems, mistakes, and misunderstandings.
- 9.5.7 Use varied and expanded vocabulary, appropriate for specific forms and topics.
- 9.5.8 Write for different purposes and audiences, adjusting tone, style, and voice as appropriate.

### *Standard 6*

#### *WRITING: English Language Conventions*

- 9.6.1 Identify and correctly use clauses, both main and subordinate; phrases, including gerund, infinitive, and participial; and the mechanics of punctuation, such as semicolons, colons, ellipses, and hyphens.
- 9.6.2 Demonstrate an understanding of sentence construction, including parallel structure, subordination, and the proper placement of modifiers, and proper English usage, including the use of consistent verb tenses.
- 9.6.3 Produce legible work that shows accurate spelling and correct use of the conventions of punctuation and capitalization.
- 9.6.4 Apply appropriate manuscript conventions — including title page presentation, pagination, spacing, and margins — and integration of source and support material by citing sources within the text, using direct quotations, and paraphrasing.

### *Standard 7*

#### *LISTENING AND SPEAKING: Skills, Strategies, and Applications*

- 9.7.2 Choose appropriate techniques for developing the introduction and conclusion in a speech, including the use of literary quotations, anecdotes (stories about a specific event), and references to authoritative sources.
- 9.7.3 Recognize and use elements of classical speech forms (including the introduction, transitions, body, and conclusion) in formulating rational arguments and applying the art of persuasion and debate.

- 9.7.4 Use props, visual aids, graphs, and electronic media to enhance the appeal and accuracy of presentations.
- 9.7.6 Analyze the occasion and the interests of the audience and choose effective verbal and nonverbal techniques (including voice, gestures, and eye contact) for presentations.
- 9.7.7 Make judgments about the ideas under discussion and support those judgments with convincing evidence.
- 9.7.10 Assess how language and delivery affect the mood and tone of the oral communication and make an impact on the audience.
- 9.7.11 Evaluate the clarity, quality, effectiveness, and general coherence of a speaker's important points, arguments, evidence, organization of ideas, delivery, choice of words, and use of language.
- 9.7.12 Analyze the types of arguments used by the speaker, including argument by causation, analogy (comparison), authority, emotion, and logic.
- 9.7.13 Identify the artistic effects of a media presentation and evaluate the techniques used to create them (comparing, for example, Shakespeare's *Romeo and Juliet* with Franco Zefferelli's film version).
- 9.7.15 Deliver expository (informational) presentations that:
- provide evidence in support of a thesis and related claims, including information on all relevant perspectives.
  - convey information and ideas from primary and secondary sources accurately and coherently.
  - make distinctions between the relative value and significance of specific data, facts, and ideas.
  - include visual aids by employing appropriate technology to organize and display information on charts, maps, and graphs.
  - anticipate and address the listeners' potential misunderstandings, biases, and expectations.
  - use technical terms and notations accurately.
- 9.7.19 Deliver descriptive presentations that:
- establish a clear point of view on the subject of the presentation.
  - establish the presenter's relationship with the subject of the presentation (whether the presentation is made as an uninvolved observer or by someone who is personally involved).
  - contain effective, factual descriptions of appearance, concrete images, shifting perspectives, and sensory details.

## **Mathematics**

### **Algebra I**

#### *Standard 9*

#### *Mathematical Reasoning and Problem Solving*

- A1.9.2 Decide whether a solution is reasonable in the context of the original situation.